WHAT IS CLAIMED IS:

1. A thin-film magnetic head comprising an upper magnetic core layer, a lower magnetic core layer arranged to be opposed to the upper magnetic core layer, an electrically conductive coil layer sandwiched between the upper magnetic core layer and the lower magnetic core layer, a first insulator layer, sandwiched between the lower magnetic core layer and the electrically conductive coil layer, for electrically insulating the lower magnetic core layer from the electrically conductive coil layer, a second insulator layer, sandwiched between the upper magnetic core layer and the electrically conductive coil layer, for electrically insulating the upper magnetic core layer from the electrically conductive coil layer,

wherein the first insulator layer is arranged on the lower magnetic core layer except the front end portion of the lower magnetic core layer facing the front end portion of the upper magnetic core layer, a lower magnetic pole layer having a thickness equal to that of the first insulator layer is arranged in continuity with the end of the first insulator layer on the front end portion of the lower magnetic core layer between the upper magnetic core layer and the lower magnetic core layer, the front end portion of the upper magnetic core layer is arranged on a gap layer on the lower magnetic pole layer, and the second insulator layer is positioned behind the lower magnetic pole

layer and close to the back end of the upper magnetic core layer.

2. A thin-film magnetic head according to claim 1, wherein the first insulator layer comprises a recess, for receiving the electrically conductive coil layer, arranged at a predetermined distance from the lower magnetic pole layer, between the lower magnetic pole layer and the back end portion of the upper magnetic core layer.

3. A thin-film magnetic head according to claim 1, wherein the upper magnetic core layer comprises a narrow-width pole region with the end portion thereof formed on the gap layer on the lower magnetic pole layer, and a yoke region being wider in width than the pole region, arranged in continuity with the back end of the pole region, and

wherein the back end of the pole region is opposed to the first insulator layer between the lower magnetic pole layer and the recess.

4. A thin-film magnetic head according to claim 1, wherein each of the upper magnetic core layer and the lower magnetic pole layer is of a dual-layer structure, the bottom layer of the upper magnetic core layer is arranged on the gap layer on the top layer of the lower magnetic pole layer, and the saturation flux density of the bottom layer of the upper magnetic core layer and the top layer of the lower

magnetic pole layer is set to be higher than the saturation flux density of the top layer of the upper magnetic core layer and the bottom layer of the lower magnetic pole layer.

5. A thin-film magnetic head according to claim 1, wherein the gap layer extends between the electrically conductive coil layer and the first insulator layer.

6. A thin-film magnetic head according to claim 1, wherein the lower magnetic core layer also serves as a top shield layer of a magnetoresistive head for reading information from a magnetic recording medium.

7. A method for manufacturing a thin-film magnetic head, comprising a step of forming a lower magnetic pole layer on a lower magnetic core layer, a step of forming a first insulator layer on the lower magnetic core layer in a manner such that the first insulator layer is arranged in continuity with the back end of the lower magnetic pole layer, a step of polishing the first insulator layer so that the thickness of the first insulator layer is equal to the thickness of the lower magnetic pole layer, a step of forming a recess in the first insulator layer, a step of forming a gap layer on the lower magnetic pole layer and the first insulator layer in a manner such that the gap layer extends into the recess, a step of forming an electrically conductive coil layer on the gap layer formed in the recess,

a step of forming a second insulator layer for covering the electrically conductive coil layer on the gap layer so that the front end portion of the second insulator layer is positioned behind the lower magnetic pole layer, and a step of forming an upper magnetic core layer on the second insulator layer and the gap layer.

8. A thin-film magnetic head comprising a lower magnetic core layer, a lower magnetic pole layer formed on the lower magnetic core layer, a non-magnetic gap layer formed at least on the lower magnetic pole layer, an upper magnetic core layer on the gap layer in a surface facing a recording medium, and a coil layer formed behind the lower magnetic layer in the direction of height, for inducing a recording magnetic field in the lower magnetic core layer and the upper magnetic core layer;

wherein the upper magnetic core layer comprises a front end region having a track width and exposed on the surface facing the recording medium, and a backward region extending backward from the back end of the front end region in the direction of height, the backward region having the width widening as the upper magnetic core layer runs backward;

a planarizing insulator layer is formed to keep in the direction of height a flat surface at the same level in continuity with the top surface of the lower magnetic pole layer, wherein the planarizing insulator layer has a flat surface remaining constant in level and a downwardly

inclined surface so that the planarizing insulator layer is gradually thinner toward the backward end thereof; and

the flat surface is higher in level than a coil layer formation surface on which the coil layer is formed and lower in level than a top surface of the coil layer.

9. A thin-film magnetic head according to claim 8, wherein the coil layer is formed directly on the planarizing insulator layer extending backward in the direction of height or on the gap layer formed on the planarizing insulator layer.

10. A thin-film magnetic head according to claim 8, wherein the lower magnetic pole layer is higher in saturation flux density than the lower magnetic core layer.

11. A thin-film magnetic head according to claim 8, wherein the lower magnetic pole layer comprises a laminate of at least two magnetic layers and wherein a magnetic layer closer to the gap layer has a higher saturation flux density.

12. A thin-film magnetic head according to claim 8, wherein the upper magnetic core layer on the front end portion thereof comprises a laminate of at least two magnetic layers, and wherein a magnetic layer closer to the gap layer has a higher saturation flux density.